

~~BIRYULIN, Gavril Mikhaylovich~~; LENTINA, M., red.; BULGAKOV, N.,  
kand. geogr. nauk, nauchn. red.

[Life among the waves] Zhizn' sredi voln. Vladivostok  
Dal'nevostochnoe knizhnoe izd-vo, 1965. 177 p.  
(MIRA 18:12)

BIRYULIN, I., arkhitektor; DZHEVELIDZE, A., arkhitektor; KONDUKHOV, A., arkhitektor

Our experience in planning projects for collective farms. Sel',  
stroi. 13 no.12:20-22 D '58. (MIRA 12:1)

1. Respublikanskiy gosudarstvennyy institut po proyektirovaniyu  
sovkhoznogo stroitel'stva.  
(City planning)

BIRYULIN, I.

Planning state farms on virgin lands in Siberia. Sel'. stroi. 14  
no.7:19-21 JI '59. (MIRA 12:10)

1. Nachal'nik otdela genplanov "Rosgiprossovkhostraya" Minister-  
stva sel'skogo khozyaystva RSFSR.  
(Siberia--City planning)

KOROBov, S., agronom-ekonomist; BIRYULIN, I., arkhitekt; KONDUKHOV, A.,  
arkhitekt; MAKHAN'KO, B., arkhitekt; SHDOV, V., inzh.-zemlen-  
stroitel'.

Regional planning. Sel'. stroi. 14 no.11:17-19 N '59 (MIRA 13:3)  
(Regional planning)

BIRYULIN, I., arkhitektor; MAKHAM'KO, B., arkhitektor; DMITRIYEV, V.  
Inzh.; KOROBOK, S., agronom-ekonomist

Method of combined planning to be used in rural areas. Sel'.  
stroil. 14 no.12:22-24 D '59. (MIRA 13:4)  
(City planning)

BIRYULIN, I., arkhitekter; KOMDUNKHOV, A., arkhitekter

Improvement of central plots on state farms. Sel'.  
stroi. 15 no.7:19-20 J1 '60. (MIRA 13:8)  
(State farms) (City planning)

BIRYULIN, I., arkhitektor

A new and improved village. Sel'.stro1. 15 no.8:24  
Ag '60. (MIRA 13:8)  
(Regional planning)

BIRYULIN, I., arkhitekt

Planning and building of villages in eastern regions is a matter of great urgency. Sel'. stroi. 15 no.11:16-18 N '60. (MIRA 13:11)  
(Soviet Far East--City planning)



BIRYULIN, I. arkhitektor

Working out regional plans. Sel'. stroi. 15 no.1:17 Ja '61.

(MIRA 14:3)

(Regional planning)

ANDREYEV, M.; BIRYULIN, I., arkhitektor; KONDUKHOV, A., arkhitektor

Shorten the time and lower the cost of planning and research operations. Sel'. stroi. 15 no.7:23-24 J1 '61. (MIRA 14:8)

1. Glavnyy spetsialist Rosgiprosel'khozstroya.  
(Regional planning--Congresses)

BIRYULIN, I., arkhitektor; KONDUKHOV, A., arkhitektor; KOROBOV, S.,  
agronom; DROZDOV, A., inzh.

Agricultural planning in Yaroslavl Province. Sel'. stroi. 16  
no.1:15 Ja '62. (MIRA 16:1)  
(Yaroslavl Province—Regional planning)

BIRYULIN, I., arkhitektor; MAKHAN'KO, B., arkhitektor; MAGIDIN, V., arkhitektor .

Planning and building farmstead centers for state farms in  
the Virgin Territory. Sel'stoi. 16 no.2:24-26 F '62.  
(MIRA 15:12)

(Virgin Territory—State farms)

(Virgin Territory—State planning)

BIRYULIN, I., arkhitektor

Efficient distribution of rural settlements. Sel'. stroi.  
[i.e.16] no.3:4 Mr '62. (MIRA 15:7)  
(Rural planning)

L1793

S/194/62/000/008/077/100  
D271/D308

9.9300

AUTHORS: Mirkotan, S.F., and Biryulin, I.A.

TITLE: Study of the scattered field by the coherent reception method

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1962, 31, abstract 8Zh219 (In collection: Ionosfern. issledovaniya, no. 9, M., AN SSSR, 1961, 18-31 [Summary in Eng.])

TEXT: Preliminary observations of the distribution of rapid fadings of the scattered component of radio field reflected from the ionosphere were carried out using a special recorder based on coherent reception principle. The analysis of data obtained has shown that the distribution of this component is symmetrical. Deviation from normal law of distribution of the scattered field is towards negative excess. In daylight, field distribution is close to normal (75 % of all cases). In transitional periods (evenings) a substantial deviation is observed from the supposed normal distribution of the scattered field (65 %). A regular phase variation of the signal  
Card 1/2

Study of the scattered field by ...

S/194/62/000/008/077/100  
D271/D308

reflected from the ionosphere in transitional periods and the influence of large-scale inhomogeneities are possible causes of the above deviation. Substantial deviations of distribution from the normal law are frequently accompanied by double-peaked differential distributions. [Abstracter's note: Complete translation.] X

Card 2/2

41090

S/058/62/000/008/117/134  
A160/A101

9.9810

AUTHORS: Mirkotan, S. F., Biryulin, I. A.

TITLE: An investigation of the scattered field by the method of coherent reception

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 31, abstract 8Zh219  
(In collection: "Ionosfern. issledovaniya. No. 9". Moscow, AN SSSR, 1961, 18 - 31; summary in English)

TEXT: With the help of a special recording device, operating by the principle of coherent reception, preliminary observations were conducted on the distribution of quick fadings of the scattered component of the radio-wave field reflected from the ionosphere. An analysis of the data obtained revealed that the distribution of this part of the field is symmetrical. A deviation from the normal law of the distribution of the scattered field is observed towards the negative-excess side. During the bright period of the day, the distribution of the field is close to normal (75% of the cases). During the transition periods (evening time), an essential deviation from the assumed normal distri-

Card 1/2



An investigation of the...

S/058/62/000/008/117/134  
A160/A101

bution of the scattered field is observed (65%). Such a deviation is possibly caused by a regular change of the phase of the signal reflected from the ionosphere during the transition periods, and by the effect of large-scale irregularities. Essential distribution deviations from the normal law are frequently accompanied by double-humped differential distributions. X

[Abstracter's note: Complete translation]

Card 2/2

ACCESSION NO: AP4001835

S/0203/63/003/006/1115/1124

AUTHORS: Mirkotan, S. F.; Biryulin, I. A.

TITLE: Equipment for registering scattered field components and preliminary results of observations

SOURCE: Geomagnetizm i aeronomiya, v. 3, no. 6, 1963, 1115-1124

TOPIC TAGS: coherent type recording equipment, ionosphere reflected radiowave field, ionosphere scattered field, radiowave field scattering, scattered field fading, radiosignal fading, field fading distribution, ionosphere wave scattering, ionospheric inhomogeneity, radiowave scattering, scattered field component, ionospheric scattering

ABSTRACT: The mechanism of the scattered component of radio waves reflected from the ionosphere has been described and represented as the sum of specularly reflected component and the majority of the scattered wave  $\mathcal{E}_0(t)$  with a stochastic amplitude  $E_s$  and phase  $2\pi f_s - \phi_s$ . The details of a coherent recorder for selecting and recording  $\mathcal{E}_0(t)$  are presented. The principle of operation is described as consisting of a continuous, high-frequency oscillation in a master oscillator being fed by

Card 1/2

ACCESSION NO: AP4001835

an amplified pulse input from a transmitter, modulated and amplified into a radio pulse of wave length 100-200  $\mu$  sec. and radiated into the ionosphere. The reflected signal from the ionosphere is collected by a commutator antenna and fed into the receiver. To test its operation 106 different  $\epsilon_{\phi}(t)$  recordings were obtained. The degree of departure from the normal distribution  $\epsilon_{\phi}(t)$  was studied in terms of the distribution asymmetry  $S_k$  and excess  $E_k$ . The mean value for  $S_k$  was + 0.01 with dispersion of 0.13 over 50 measurements. The change in  $E_k$  was within 0 and -1.5. The authors conclude that the ionospheric data obtained over a period of 24 hours indicate on this recorder normal distribution in the scattered field component of the reflected wave from the ionosphere. Orig. art. has: 10 formulas and 7 equations.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet Fizicheskii fakul'tet (Moscow State University Physics Department)

SUBMITTED: 08May63

DATE ACQ: 17Dec63

ENCL: 00

SUB CODE: SD, CO

NO REF SOV: 013

OTHER: 002

Card 2/2

ACCESSION NR: AP4043796

S/0188/64/000/004/0029/0033

AUTHOR: Biryulin, I. A.

TITLE: Propagation of electromagnetic waves in a homogeneous gyrotropic medium

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 4, 1964, 29-33

TOPIC TAGS: gyrotropic medium, ionosphere, electromagnetic wave, electromagnetic wave propagation, invariant method, radio wave

ABSTRACT: The area of application of invariant methods is not limited to crystal optics. These methods can be used successfully in radio physics, specifically, in problems associated with the propagation of electromagnetic waves in a nonhomogeneous medium. In such a medium, the propagation process is controlled by the effective tensor of the dielectric constant, which is determined by the integral properties of the medium, not by the local tensor. In a locally isotropic nonhomogeneous medium the effective tensor of the dielectric constant, in the case of a particular form of nonhomogeneous formations, characterizes a homogeneous anisotropic absorbing medium; the principal axes of the real and imaginary tensors do not coincide. The results obtained earlier by use of invariant methods for inactive media have led the author to undertake the solution of a similar problem of elec-

Cord 1/2

ACCESSION NR: AP4039727

S/0141/64/007/002/0273/0279

AUTHOR: Biryulin, I. A.

TITLE: On the electromagnetic wave polarization in an isotropic inhomogeneous medium

SOURCE: IVUZ. Radiofizika, v. 7, no. 2, 1964, 273-279

TOPIC TAGS: ionospheric radio wave, ionospheric propagation, electromagnetic wave, electromagnetic interference, dielectric permittivity, terrestrial magnetism

ABSTRACT: The propagation of electromagnetic waves in an isotropic medium with random inhomogeneities is considered by analyzing the effect of the local and effective dielectric constant on the dispersion of the wave and on the absorption coefficient. In particular, the effective tensor in a medium with nonspherical inhomogeneities is considered by regarding the inhomogeneities as ellipsoids that are prolate in the direction of the earth's magnetic field. It is shown that a medium with nonspherical inhomogeneities is anisotropic for the regular field component, so that two waves with different phase velocities and with different attenuations can propagate in the medium. The effect of interference between these components and of polarization is briefly considered as applied to propagation in the ionosphere. Orig. art. has. 1 figure and 8 formulas.

Card 1/2

ACCESSION NR: AP4039727

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 08Jun63

ATD PRESS: 3084

ENCL: 00

SUB CODE: EM

NR REF SOV: 011

OTHER: 000

Card

2/2

BIRYULIN, I.A.

Polarization of electromagnetic waves in an isotropic inhomogeneous medium. Izv. vys. ucheb. zav. radiofiz. 7 no.2:273-279 '64 (MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet.

BIRYULIN, P.P.

Electromagnetic field of electric and magnetic dipoles placed  
on the axes of a paraboloidal reflector. Izv. vys. ucheb. zav.;  
Fiz. no.1:42-51 '58. (MIRA 11:6)

1.Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosuniversitete  
imeni V.V. Kuybysheva.

(Electromagnetic theory)



6.9000  
16.7000

S/194/62/000/005/094/157  
D230/D308

AUTHORS: Biryulin, P.P., and Tarasenko, F.P.

TITLE: Information approach to the theory of reception

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,  
no. 5, 1962, abstract 5zh64 (Tr. Sibirsk. fiz.-tekhn.  
in-ta pri Tomskom un-te, 1961, no. 40, 8-14)

TEXT: The process of reception is divided basically into two stages: 1) Signal conversion with the purpose of preparing the solution and, 2) adoption of a solution. As one of the optimum methods of signal pre-treatment, it is possible to use calculation of the differences of the existing amounts of information about the possible states of the transmitted signal. This leads to the calculation of the logarithm of the probability ratio, thus revealing the information sense of the algorithm operations of the theory of verification of statistical hypotheses. The problem of optimum multi-channel reception is briefly discussed. The second stage, adoption of a solution, is considered as a choice of optimum strategy. It is shown that the number of optimum strategies in a discrete n-alterna-  
Card 1/2

Information approach to the theory ...

S/194/62/000/005/094/157  
D230/D308

tive case exceeds  $n^2 - n + 2$ . In conclusion, the problem of preference of the information approach to a purely statistical approach is discussed. [Abstractor's note: Complete translation].

Card 2/2

ACC NR: AP7002650

SOURCE CODE: UR/0413/66/000/023/0199/0199

INVENTORS: Tarasenko, V. P.; Biryulin, P. P.

ORG: none

TITLE: A flight-control device for aircraft. Class 72, No. 183625

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 199

TOPIC TAGS: aircraft, aircraft automatic pilot, aircraft control equipment, aircraft flight instrument, aircraft guidance equipment, radar control, radar equipment, radar guidance, radar map matching, radar navigation

ABSTRACT: This Author Certificate presents a flight-control device for aircraft. The device contains side-mounted radar equipment, a unit for matching the image of a district on the radar screen with the radar maps of this district along the itinerary, an optical correlator, and an autopilot. A projecting system is used to automate the output for the autopilot and the tape-actuating mechanism of the cards for discrete directing electrical signals of the transverse and the lateral deviations of the aircraft position from the desired position. This system projects the image of the correlation functions onto an iconoscope screen with a memory unit and with a unit for electronic automatic analysis of the image. The latter unit serves to determine the coordinates of the maximum brightness point and produces electrical signals. These signals are proportional to the coordinates of the aircraft deviation from the position established by the flight program.

SUB CODE: 01, 17/ SUBM DATE: 17Mar60  
Card 1/1

UDC: 623.4.054.93

69200

S/044/62/000/006/108/127  
B166/B112

AUTHORS: Biryulin, P. P., Tarasenko, F. P.

TITLE: Information approach to reception theory

PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 57, abstract  
6V291 (Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te,  
no. 40, 1961, 8-14)

TEXT: It is suggested that the reception process be broken down into two stages: (1) preparation of the decision, (2) the taking of the decision itself. The objective of the first stage is to make as full use as possible of the information received as a result of the arrival of the signal in order to prepare for making the decision. It is suggested that the second stage be regarded as the selection of an optimum strategy. As the concept of optimality is relative, as many optimum strategies can exist as can be put forward various requirements as to the properties of the strategies. Thus one can obtain the concept of optimum reception according to Woodward from the viewpoint of the classical theory of checking hypotheses and, finally, of the theory of statistical decisions.  
Card 1/2

✓B

Information approach to ...

S/044/62/000/006/108/127  
B166/B112

[Abstracter's note: Complete translation.]

✓B

Card 2/2

GERSHOV, M.M.; BIRYULIN, P.S.

New method of dyeing cotton fabrics. Tekst.prom. 20  
no.6:62 Je '60. (MIRA 13:7)  
(Dyes and dyeing--Cotton)

BIRYULIN, V., inzh.-konstruktor

Bookshelf of the aviator. Grazhd. av. 21 no.10:25 0 '64.  
(MIRA 18:3)

BIRYULIN, V., polkovnik

Cadets must have knowledge on company housekeeping. Tyl i  
snab. Sov. Voor. Sil 21 no.11:50-52 N '61. (MIRA 15:1)  
(Russia--Army--Military life)



BIRYULIN, V.

An airplane is tested... Kryl. rod. 15 no.11:22-24 N '64.  
(MIRA 18:3)

BIRYULIN, V.

An airplane is tested...(conclusion). Kryn. rod. 15 no.12:20  
D '64.

(MIRA 18:3)

GEISSON, Alfred; MYERS, Garry C.; ~~BIRIULIN~~, V.I., inzhener [translator];  
BRATUKHIN, I.P., professor, redaktor; ZUDAKIN, I.M., tekhnicheskii  
redaktor.

[Aerodynamics of the helicopter] Aerodinamika vertoleta. Perevod  
s angliiskogo V.I.Biriulina. Pod red. I.P.Bratukhina. Moskva, Gos.  
izd-vo oboronnoi promyshlennosti, 1954. 254 p. [Microfilm](MLRA 8:1)  
(Helicopters) (Aerodynamics)

BIRYULIN, V.

AID P - 5301

Subject : USSR/Aeronautics - Helicopters

Card 1/1 Pub. 58 - 8/13

Author : Biryulin, V., Designer

Title : Modern helicopters  
Vol. 1,

Periodical : Kryl. rod., 10, 13-16, 0 1956

Abstract : An outline of the conditions of flight of helicopters as compared to those of airplanes, and a more or less detailed description of the Soviet helicopters Mi-4, Yak-24, B-11 and Ka-10. Five photos, 1 drawing.

Institution : None

Submitted : No date

BIRYULIN, V.

AID P - 5528

Subject : USSR/Aeronautics - Helicopters

Card 1/1 Pub. 58 - 2/15

Author : Biryulin, V., Designing Engineer

Title : Helicopters of tomorrow

Periodical : Kryl. rod., <sup>Vol. 7,</sup> 12, 2-3, D 1956

Abstract : The author indicates the lines along which the construction of the helicopters is likely to develop in the future, and gives a brief survey of some new concepts in this field. 2 drawings.

Institution : None

Submitted : No date

BIRYULIN, V.

AUTHOR: Biryulin, V., Engineer

84-11-18/36

TITLE: Mechanical Features of Coaxial Rotor Helicopters  
(Konstruktivnyye osobennosti soosnykh vertoletov)

PERIODICAL: Aviatsiya i Kosmonavtika

SOV/85-59-8-30/43

(

AUTHOR: Biryulin, V., Aircraft Designer

TITLE: The Birth of an Aircraft

PERIODICAL: Kryl'ya rodiny, 1959, Nr 8, pp 21-23 (USSR)

ABSTRACT: This article is the first part of a description of how a new type of aircraft is born, from the time when its vague image arises in the designer's mind, up to the completion of the working drawings. It is intended to give the uninitiated reader an idea of the many-sided complex of work, hopes, expectations, frustrations and triumphs involved in such a process. The article is purely abstract, where nameless people of a nameless organization design and build a nameless airplane. There are 3 sets of diagrams and 2 drawings. ✓

Card 1/1

ZAKHARIN, Veniamin Aleksandrovich; BIRYULIN, V.I., inzh., retsenzent; SO-  
KOLOV, A.I., inzh., red.; BOGOMOLOVA, M.F., red. izd-va; GARNUKHINA,  
L.A., tekhn. red.

[Helicopter] Vertolet. Izd. 2., perer. Moskva, Gos.nauchno-tekhn.  
izd-vo Oborongiz, 1961. 112 p. (MIRA 14:6)  
(Helicopters)



BIRYUZOVA, V.I.; VOLKOVA, T.M.

Electron microscopic and cytochemical study of the Golgi apparatus in yeast cells. Dokl. AN SSSR 153 no.5:1180-1182 -  
D '63. (MIRA 17:1)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii i  
Institut mikrobiologii AN SSSR. Predstavleno akademikom  
A.A. Imshenetskim.

137-58-2-4068

*BIRYULIN, V.T.*

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 257 (USSR)

**AUTHORS:** Malyshev, K.A., Biryulin, V.T.

**TITLE:** The Effect of the Intragranular Texture and Recrystallization of Austenite on the Mechanical Properties of Alloy Steels (Vliyaniye vnutrizerennoy tekstury i rekristallizatsii austenita na mekhanicheskiye svoystva legirovannykh staley)

**PERIODICAL:** Tr. In-ta fiz. metallov. Ural'skiy fil. AN SSSR, 1956, Nr 17, pp 72-93

**ABSTRACT:** An investigation was made of the influence of the intragranular texture and recrystallization of austenite on the  $a_k$  value of steels 50 and 40Kh at low temperatures. Overheated, normalized, and high-temperature-tempered specimens were impact-tested at temperatures of 20, 0°, -20, -40, -60, -80, -100, and -196°C. It was found that overheated steel 50 even at room temperature exhibited an intragranular texture and brittleness ( $a_k < 1 \text{ kgm/cm}^2$ ). Subsequent heat treatment eliminated partially or fully (in the case of double normalization) the intragranular texture and lowered the cold-brittleness threshold.

Card 1/2 Steel not subjected to overheating had the same  $a_k$  level after

137-58-2-4068

The Effect of the Intragranular Texture and Recrystallization of Austenite (cont.)

double normalization as overheated steel, but its cold-brittleness threshold was lower. The fracture and the structure of steel 40Kh were found to be similar to those of steel 50. The intragranular texture of steel 40Kh proved more stable than that of steel 50; it was eliminated completely only after steel 40Kh had been rapidly heated to 850 and 900° for double normalization, which lowered the cold-brittleness threshold to -80°. In the specimens of steel 40Kh not subjected to overheating the cold-brittleness threshold was below -80° regardless of the type of heat treatment used. As the temperature of the test was reduced, high-temperature-tempered steel 40Kh (regardless of the type of heat treatment) exhibited a gradual decline in the  $a_k$  value, with no apparent cold-brittleness threshold. The fracture became completely brittle only at -196°. It was found that the  $a_k$  level and the cold-brittleness-threshold temperature of steels 50 and 40Kh depended on the size of the actual austenite grain. In a single heat treatment the effect of overheating was not fully eliminated, and the intragranular texture remained.

V.A.

1. Steel—Mechanical properties—Austenitic factors

Card 2/2

BIRYULIN, V.T.; SADOVSKIY, V.D.

Effect of nickel on the impact toughness of manganese austenitic steels. Trudy Inst. fis. met. no.18:66-71 '56.

(MLRA 10:2)

(Nickel-manganese alloys--Testing)

BIRYULIN, V.T.; SADOVSKIY, V.D.

Effect of cold working on the mechanical properties of  
hardened steel. Trudy Inst. fiz. met. no.18:72-98 '56.

(MIRA 10:2)

(Steel--Hardening) (Steel--Cold working)

67418

SOV/123-59-12-46685

12.7100

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 12, p 109 (USSR)

AUTHORS: Biryulin, V.T., Sadovskiy, V.D.

TITLE: On the Problem of the Effect of Isothermic Hardening on the Mechanical Properties of Steel

PERIODICAL: V sb.: Materialy Nauchno-tekhn. Konferentsii po probl. zakalki v goryachikh sredakh i promezhutochn. prevrashcheniyu austenita. Vol 1, Yaroslavl', 1957, pp 162-179

ABSTRACT: The effect of isothermic hardening on the mechanical properties of 40KhNMA, 35KhGSA and 38KhMVuA steels is investigated.  $a_k$  and hardness, in dependence on the hardening and annealing conditions, were determined. The hardness and  $a_k$  of 40KhNMA steel after ordinary oil hardening and annealing, and after isothermic hardening in agents with a temperature of 200 - 550°C with 30 minutes soaking, showed that the superiority of isothermic hardening can be observed in the range of those hardness values which, for ordinary hardening, correspond to annealing in the zone of development of irreversible brittleness. The isothermic hardening of 30KhGSA steel in agents with a temperature of 250 - 350°C results in a higher  $a_k$  compared with ordinary

Card 1/2

67418

SOV/123-59-12-46685

On the Problem of the Effect of Isothermic Hardening on the Mechanical Properties of Steel

hardening and annealing to the corresponding hardness. In comparison with 35KhGSA steel, 38KhMYuA steel possesses a somewhat wider temperature range of hardening agents, which shows advantages over the ordinary hardening and annealing in relation to  $a_k$ ; also the range of hardness values on the basis of which this advantage is maintained, is wider. 38KhMYuA steel in the temperature range of 550 - 300°C differs from 35KhGSA steel by the more complete development of intermediate transformation. 38KhMYuA steel acquires an increased  $a_k$  during isothermic hardening in agents of a temperature of 300 - 400°C with comparatively short soaking in the hardening agent. The effect of isothermic hardening on the  $a_k$  of structural steel is, to a significant degree, connected with the kinetic and more profound peculiarities, manifested by those processes, which determine the irreversible or reversible annealing brittleness. 14 figures.

S.A.I.

Card 2/2

*BIRYULIN, V. T.*

SOV/124-58-11-13627

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 233 (USSR)

AUTHORS: Sadovskiy, V. D. , Malyshev, K. A. , Sokolov, Ye. N. , Smirnov, L. V. ,  
Bogacheva, G. N. , Biryulin, V. T. , Petrova, S. N.

TITLE: The Influence of High-temperature Plastic Deformation on the Temper  
and Aging Brittleness of Quenched Steels (Vliyaniye plasticheskoy  
deformatsii pri vysokikh temperaturakh na khrupkost' pri otpuske i  
starenii zakalennykh staley)

PERIODICAL: V sb. : Issled. po zharoprochn. splavam. Vol 2. Moscow, AN SSSR,  
1957, pp 76-91

ABSTRACT: As a result of tests it was found that the brittleness developed upon  
aging of austenite steel of the 60Kh4G8N8V type, as well as upon aging  
of industrial high-temperature steel, can be held down through the  
application of a combined thermomechanical treatment consisting of  
the quench-hardening of a plastically deformed nonrecrystallized  
austenite. The authors explain the effect of the thermomechanical  
treatment by the sharp localization of the deformation, which at  
elevated temperatures proceeds along the grain boundary, which leads  
to a reduction in the unfavorable effect of the phases that separate out

Card 1/2



SOV/124-58-11-13627

The Influence of High-temperature Plastic Deformation (cont.)

along the boundaries during the tempering and contribute to the development of the brittleness.

D. M. Vasil'yev

Card 2/2

BIRYULIN, V.T.; BUDEN, E.A.

Experience in the operation of UNS-150 airtight units in the  
discharge of paraffin-base petroleum. Transp. i khran. nefti  
pt. c no.2:10-12 '63. (MIRA 17:10)

1. Ventspilsskaya perevalochnaya neftebaza Glavneftetopsnabsbyta  
Latviyskoy SSR.

BIRYULIN, V.T.

Mechanical cleaning of tanks during the discharge of high-paraffin  
petroleums at terminals. Transp. i khran. nefti i nefteprod. no.8:  
22-24 '65. (MIRA 18:9)

1. Ventspilaskaya neftebaza Glavneftetopasnabyta Latviyskoy SSR.

BIRYULINA, P.G.

Appearance of forest pests. Priroda 50 no.5:126 My '61.  
(MIRA 14:5)

1. Donskaya nauchno-issledovatel'skaya lesnaya opytnaya stantsiya  
(Veshenskaya, Rostovskoy obl.).  
(Insects, Injurious and beneficial)

*BIRYULINA, T.I.*

ZIL'BER, L.A.; NARTSISSOV, N.V.; BIRYULINA, T.I. (Moskva D-182,  
Shchukinskaya, D. 33, Institut epidemiologii i mikrobiologii im.  
N.F. Gamaleya.

Passive hemagglutination caused by the chicken sarcoma virus [with  
summary in English] Vop. onk., 2 no.6:646-649 '56 (MLRA 10:4)

1. Iz otdela immunologii slokachestvennykh opukholey (sav.-deystv.  
chl. AMN SSSR prof. L.A. Zil'ber) Instituta epidemiologii i  
mikrobiologii im. pochetn. akad. N.F. Gamaleia (dir.-deystv. chl.  
AMN SSSR prof. G.V. Vygodchikov)

(AGGLUTINATION

passive, of rabbit erythrocytes, by Rous sarcoma virus)

(VIRUSES

Rous sarcoma virus causing passive agglut. of rabbit  
erythrocytes)

CZECHOSLOVAKIA/General Problems of Pathology - Tumors. Immunity. U.

Abs Jour : Ref Zhur - Biol., No 2, 1959, 8809

Author : Zil'ber, L.A., Biryulina, T.I., Nartsissov, N.V.

Inst : -

Title : Passive Hemagglutination Reaction and the Inhibition of  
It in Chicken Sarcoma

Orig Pub : Zh. gigiyeny, epidemiol., mikrobiol. i immunol., 1957,  
1, No 1, 68-74

Abstract : No abstract.

Card 1/1

- 37 -

3. BIRYULINA, T. I.  
ZILBER, L.A.; BIRYULINA, T. I.; MARTSAGROV, N. V.

The reaction of passive haemagglutination and its inhibition by chicken sarcoma. J. Hyg. Epidemiol., Praha 1 no. 1: 40-87 1957.

1. Gamaleya Institute of Epidemiology and Microbiology, Moscow.

(HEMAGGLUTINATION,

passive hemagglut. reaction, inhib. by chicken sarcoma extract)

(SARCOMA, experimental,

chicken sarcoma extract, inhib. of passive hemagglut. reaction)

(NEOPLASMS, experimental

same)

ZIL'BER, L.A., KRYUKOVA, I.N., KARTSISSOV, N.V., BIRYULINA, T.I.

Serological differentiation of Rous sarcoma and normal tissue extracts  
[with summary in English]. Vop.onk.4 no.3:268-270 '58 (MIRA 11:8)

1. Iz Instituta epidemiologii i mikrobiologii im. Gamaleya ANU SSSR.  
Adres avtorat Moskva; 182, Shchukinskaya ul., d. 83, Institut  
epidemiologii i mikrobiologii im. Gamaleya.

(SARCOMA, exper.

Rous sarcoma extract, serol. differentiation with normal  
tissue extract (Rus))



SHERSHUL'SKAYA, L.V.; VADOVA, A.V.; NARTISSOV, N.V.; BIRYULINA, T.I.

Acquired immunological tolerance to antigens of normal and neoplastic  
human tissue. Vep.onk. 6 no.9:3-9 S '60. (MIRA 14:1)  
(TUMORS) (ANTIGENS AND ANTIBODIES)

NARTSISSOV, N.V.; BIRYULINA, T.I.; KRYUKOVA, I.N.

Complement fixation reaction in fibromatosis produced in rabbits with Rous sarcoma virus. Vop. virus. 7 no.3:292-295 My-Je'62. (MIRA 16:8)

1. Otdel immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.  
(CANCER) (VIRUSES) (COMPLEMENT FIXATION)

NARTSISSOV, N.V.; BIRYULINA, T.I.; KRYUKOVA, I.N.; MORGUNOVA, T.D.

Complement fixation reaction in hemorrhagic disease in rats  
caused by Rous sarcoma. Vop. virus. 7 no.3:295-302 My-Je'62  
(MIRA 16:8)

1. Otdel immunologii i onkologii Instituta epidemiologii i  
mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.  
(CANCER) (VIRUSES) (COMPLEMENT FIXATION)

YEGOROV, I.K.; IRLIN, I.S.; BIRYULINA, T.I.; MEDVEDEV, N.N.

Breeding of mice free of polyoma virus. Vop. virus. 7  
no.3:331-333 My-Je '62. (MIRA 16:8)

1. Otdel immunologii i onkologii Instituta epidemiologii i  
mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.  
(TUMORS) (VIRUSES) (MICE AS LABORATORY ANIMALS)

ACC NR: AP6033197

SOURCE CODE: UR/0219/66/062/010/0075/0078

AUTHOR: Borishpolets, Z. I.; Tikhonenko, T. I.; Biryulina, T. I.

ORG: Department of Immunology and Oncology /Director - Active Member  
SSSR L. A. Zil'ber/, Institute of Epidemiology and Microbiology im.  
N. F. Gamaleya /Director - Corresponding Member AN SSSR O. V. Baroyan/,  
AMN SSSR (Otdel immunologii i onkologii Instituta epidemiologii i  
mikrobiologii AMN SSSR)

TITLE: Antigenicity of DNA bacteriophages

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 62,  
no. 10, 1966, 75-78

TOPIC TAGS: antigen , DNA, bacteriophage, ~~T2 bacteriophage~~,  
medical experiment

ABSTRACT: The antigenic properties of DNA bacteriophages have been  
debated in the literature. To determine whether or not DNA phages  
possess antigenic properties, DNA preparations from T2 phages consisting  
mostly of phage protein were used as the antigenic component in the  
diffusion precipitation in agar and complement-fixation reactions.  
Only partially "deproteinized" DNA protein (denatured by phenol) yielded

Card 1/2

UDC: 576.858.9.098.396.332.092.7

ACC NR: AP6033197

positive results. More denaturation deprived DNA preparations of their antigenic properties. Orig. art. has: 2 tables. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 21May65/ ORIG REF: 011/ OTH REF: 011

Card 2/2

BIRYULINA, V.N., inzhener.

Equipment for gold plating of minor parts. Priborostroenie no.7:  
30 JI '57.

(MLRA 10:9)

(Gold plating)

BIRYULINA, V.N., inzhener.

Automatic machines for punching holes in watch wheels. Priborostroenie  
no.9:27-28 S '57.

(MIRA 10:10)

(Clockmaking and watchmaking)



BIRYULYA, Ye., inzhener.

Equipment for meat-packing enterprises. Mias.ind. SSSR 25 no.6:  
7-9 '54. (MLRA 8:1)

1. Nachal'nik Glavnyasomolmashdetali.  
(Meat industry)

ZMEYEV, A.; BIRYUZOV, I.

Present-day situation of the rolling stock market. Vnesh.trog. 29  
no. 7:28-34 '59. (MIRA 12:11)

(Railroads--Rolling stock)

BIRYUZOV, S.S., marshal Sovetskogo Soyuza

Reliable guard of Soviet power. Voen. znan. 40 no.2:1-2 F '64.  
(MIRA 17:2)

BIRYUZOV, S.S., marshal Sovetskogo Soyuz.

Air defense forces, discussion with S.S. Biriuzov, marshal of the  
Soviet Union. Voen.snan. 31 no.8:10-12 Ag '56. (MLRA 9:11)  
(Antiaircraft guns)

BIRYUZOV, S.S., marshal Sovetskogo Soyuza

Always on guard, Vest. protivovozd. obor. no. 2:3-8 F '61. (MIRA 14:2)  
(Russia—Armed forces)

BIRYUZOV, S.S., marshal Sovetskogo Soyuza

Congress of the great Leninist party. Vest.protivovozd.obor.  
no.10:3-10 0 '61. (MIRA 15:2)  
(Communist Party of the Soviet Union--Congresses)  
(Russia--Armed forces)

BIRYUZOV, S., marshal Sovetskogo Soyuz

The units of Soviet air defense should increase their military preparedness and vigilance. Komm.Voeruzh, Sil 2 no.5:8-15 Mr '62.

(MIRA 15:2)

(Air defenses)

S/017/63/000/001/001/004  
A004/A126

AUTHOR: Biryuzov, S. S., Marshal of the Soviet Union

TITLE: On guard of the fatherland

PERIODICAL: Voyennyye znaniya, no. 1, 1963, 3 - 4

TEXT: The Marshal of the Soviet Union presents a brief survey on the history of the Soviet Union, comments on the international situation and blames the United States in particular for turning down the Soviet proposals concerning a general disarmament and a nuclear test stop. He maintains that the US attempts to suppress the Cuban people are only one link in the chain of Imperialist crimes against the progressive part of mankind. He then enumerates the achievements of the Armed Forces of the Soviet Union and points out that, with their first-class armament, the Armed Forces of the Soviet Union are able to crush any enemy at any moment if ever an attack should be launched on the Soviet Union. He boasts of the accuracy of Soviet anti-aircraft installations, emphasizes the destructive power of Soviet intercontinental ballistic missiles and states that any modern aircraft trying to penetrate Soviet territory could be shot down by the new

Card 1/2



On guard of the fatherland

S/017/63/000/001/001/004  
A004/A126

Soviet anti-aircraft rockets. Moreover, he maintains that the Soviet Union has successfully solved the problem of destroying hostile missiles in flight. Apart from general assertions, no details on the weapons enumerated are given. There is 1 photo.

Card 2/2

*19.04.1957*  
SHVARTS, B.A.; GLUBOKOVA, P.D.; MIROSHNIKOVA, Ye.Z.; BIRYUZOVA, A.M.

Penicillin therapy in otorhinolaryngology. Vest.oto-rin. 19  
no.6:92 M-D '57 (MIRA 11:3)

1. Iz kliniki bolezney ukha, gorla i nosa (sav.-prof. B.A. Shvarts)  
Khabarovskogo meditsinskogo instituta.  
(PENICILLIN) (OTORHINOLARYNGOLOGY)

CA

11C

Cytological investigations in the field of acetic acid bacteria V. I. Biryuzova (First State Univ., Moscow). *Mikrobiologiya* 10, 285-92 (1947); *Chem. Zentr.* 1948, 11, 1185. — A study was made of *Bact. schweizerbachii* and *Bact. aceti*. In both of these organisms 1-2 nucleotides were detected in the nucleus. This corresponds to microchem. requirements based on nuclear structure. Under special conditions (glycerol, glucose, galactose, levulose in yeast water) gigantic, elongated forms developed. In the presence of an alc. deficiency and further oxidation of the H<sub>2</sub>OAc (to CO<sub>2</sub> and H<sub>2</sub>O) filamentous formations with much nucleotides were observed. The observed cell gigantism and the increase in nucleotides ceased after 21-4 hrs. growth with vigorous cell division. In the initial stages a sharp basophilic acidophilia (oxyphilia) became more and more pronounced. M. G. Moore

FA 34/49T50

USSR/Medicine - Microscopy  
Medicine - Dialysis

Nov/Dec 48

"Drop Dialysis - A Method of Preparing Biological  
Compounds for Electron Microscopy," A. E. Kriss,  
V. I. Bryuzov, A. M. Zolover, Office of Electron  
Micros, Dept of Biol Sci, Acad Sci USSR, Moscow,  
3 1/2 pp

"Mikrobiologiya" Vol XVII, No 6

Describes method in detail. Based on principle of  
using supporting colloidal film, the "slide" in  
electron microscopy, as dialysis diaphragm. Method  
facilitates electron microscopy of ontogenetic stages

34/49T50

USSR/Medicine - Microscopy (Contd) Nov/Dec 48

of cells or character of changes in them under in-  
fluence of various physical, chemical, and biological  
agents. Submitted 14 Jun 48.

34/49T50

BIRYUZOV, V. I.

BIRYUZOVA, V. I.

Jun 1948

USSR/Medicine - Enzymes  
Medicine - Autolysis

"Structure of Plastids and Activity of Ferments," M. M. Sisakyan, A. N. Zolkover,  
V. I. Biryuzova, Inst of Biochem named A. N. Bakh, Lab of Electronic Micros. Dept  
of Biol Sci, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 7

Discusses character of the change of structure of plastids as result of their autolysis,  
and relations of changed condition of structures to activity of ferments included  
in plastids. Submitted Mar 1948

PA76785

BIRYUZOVA, V. I.

28977 O yadre u bakteriy. (Obzor Rabot po el elektronnoy Mikroskopii).  
Priroda, 1949, No. 9, s. 29-37 Bibliogr: 22 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

BIRYUZOVA, V. I., ZOLKOVER, A. I. and OVCHAROVA, T. I.

"On the Morphology of Bacteriophage", Zhur Mikrobiol, Epidemiol i Immunobiol,  
No. 1, pp 9-11, 1950.

BIYYULOVA, V. I., MOVSEYAN, A. M. and ZOLMOVER, A. M.

"Study of the Morphology of the Bacteriophage of Str. lactis With the Aid of the Electron Microscope", Zhur Mikrobiol, Epidemiol i Immunobiol, No. 3, pp 61-64, 1950.



CA

116

/ Autolysis and lysis in bacterial cells. I. Electron microscopy of autolysis in bacterial cells. A. R. Kiba and V. I. Biryunova. *Zhur. Obshchei Biol.* (J. Gen. Biol.) 11, 381-82 (1950).—Electron microscopy of an atypical form of

*Bacillus myxoides* (from soil) showed autolytic sensitivity to gramicidin, penicillin, streptomycin, and bacteriophage. Autolytic degradation in cells killed by EtOH (96%), CHCl<sub>3</sub>, or toluene showed no observable difference from autolysis in old cultures. Autolysis of sporogenic cells degrades the plasma (not the envelope) to simpler compounds, leaving the cell optically empty (transparent to the electron beam).  
Julian F. Smith

CA

11e

Autolysis and lysis of bacterial cells. II. Cyto-  
phologic changes in bacterial cells by action of gramicidin.  
A. E. Kris and V. I. Biryusova. *Zhur. Obshch. Biol.*  
(J. Gen. Biol.) 11, 434-48 (1950); cf. C.A. 45, 4783i.  
Culture tests, phase contrast microscopy, and electron  
microscopy reveal 3 lethal cytologic effects of gramicidin:  
autolysis, lysis, and coagulation. Characteristic autolytic  
changes plainly distinguish killed from surviving cells under  
the electron microscope. The cell wall is most resistant to  
gramicidin; lethal changes in the plasma soon follow pen-  
etration of the cell wall. Doses of gramicidin (in broth)  
were 10, 25, 50, 125, and 250  $\gamma$ /ml. At 125 and 250, in-  
activation of the cell enzymes appears to inhibit further  
action on the altered cell wall and coagulated plasma.  
Julian F. Smith

Lb. 7 Electronic Microscopy, Div. Biol. Sci., AS USSR

1951

1. KRISS, A. YE., BIRYUZOVA, V. I.
2. USSR (600)
7. "Autolysis and Lysis of Bacterial Cells. 3. Formalin as a Lytic Agent", Zhurnal Obshchey Biologii, No 3, 1951, pp 211-224.
9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

1. KRISS, A.YE., BIRYUZOVA, V.I.
2. USSR (600)
7. "Acceleration of the Processes of Decomposition of Bacterial Cells Under the Influence of Certain Substances", Priroda, No 5, 1951, pp 36-48.
9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

1951

Biological Chemistry  
11C) Microbiology

Autolysis and lysis of bovine cells. III. Formalin as a  
lytic agent. A. E. Kries and V. I. Burysova. *Zhur.*  
*Obshch. Biol.* (J. Gen. Biol.) 12, 211-24(1951); cf. C.A.  
45, 7640h. — Inactivation of *Bacillus mycoides* by HClHO  
(20 to 300,000 p.p.m.) is compared with the effects of gram-  
icidin, penicillin, streptomycin, CHCl<sub>3</sub>, and toluene. These  
agents promote lysis by activating the lytic components of  
cells.  
Julian F. Smith

SISAKYAN, N.M.; BIRYUZOVA, V.I.; KOBYAKOVA, A.M.

Changes in structure and enzymic activity of plastids in the ontogenetic development of the plant. Biokhimiya '51, 16, 449-452. (MLRA 4:10)

... E. A. RUKINA, E. A.

Occurrence of Toxin Organic Compounds in the Black Sea, (Microbiology Institute,  
Academy of Sciences, Moscow), Mikrobiologiya, 1951, Vol 20, pp 90-102.  
Institute of Microbiology, U.S.S.R. Academy of Sciences, Central State Scientific Con-  
trolling Institute imeni Tarasevich, Moscow.

~~BIRYUZOVA, V. I.~~  
KRISS, A. Ye.; RUKINA, Ye. A.; BIRYUZOVA, V. I.

"Microzonality in the Distribution of Heterotropic Microorganisms in the Sea,"  
Mikrobiologiya, Vol 20, No 3, 1951, pp 256-265.

Inst. of Microbiology, AS USSR

Translation M-576, 29 Jun 55



1. KRASIL'NIKOV, N. A. and KHUDYAKOVA, YU. A. AND BIRYUZOVA, V. I.
2. USSR (600)
4. Microorganisms, Nitrogen-Fixing
7. Flagellation apparatus of Azotobacter under the electron microscope. Trudy Inst. Mikrobiol. no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

**MUKINA, Ye.A.; BIRYUKOVA, V.I.**

**Method of preparation of membranous ultrafilters for direct count,  
free from cells of microorganisms. Mikrobiologiya, Moskva 21 no.1:60-  
65 Jan-Feb 1952.  
(GLML 22:1)**

**1, Institute of Microbiology, Academy of Sciences USSR, Moscow.**

PIRYUZOVA, V. I.

USSR/Biology - Phages

Jan/Feb 53

"Electronic Microscope Observations of the Effects of Actinophage on the Lysis of Actinomycetes," Ya. I. Rautenshtein, A. S. Tikhonenko, V. I. Biryuzova, A. M. Zolkover, Inst of Microbiol Acad Sci USSR

Mikrobiol, Vol 22, No 1, pp 11-14

Authors describe their research on the morphology and action of actinophage, support their statements by microphotographs, and assert that their observations showed that hyphae derived from the same mycelium may react in a different manner to actinophage. Phage-resistant cultures form as a result of qualitative changes in certain sections of the mycelium. These findings, according to authors, confirm Lysenko's statement that, in the process of a transmutation of the old into the new, the change affects only individual sections of the cell and not the cell as a whole.

PA 255T7

USSR/ Biology - Microbiology

Card : 1/1

Authors : Kriss, A. E., Biryuzova, V. I., and Rukina, E. A.

Title : Distribution of micro-organisms in the water mass of the Central and Southern Caspian area and their mineralizing activity

Periodical : Dokl. AN SSSR, 97, Ed. 2, 329 - 332, July 1954

Abstract : In August-September 1952, the expedition of the All-Union Institute of Oceanography and Ocean Fish Life investigated the distribution of micro-organisms in the water mass of the Central and Southern ends of the Caspian Sea. Their findings are described in detail. Nine references. Table, drawings.

Institution : Acad. of Sc. USSR, Institute of Microbiology

Presented by : Academician V. N. Shaposhnikov, May 5, 1954

~~BIOL. ZOOV. V.I.~~

USSR/ Biology - Microbiology

Card 1/1 Pub. 22 - 29/47

Authors : Kriss, A. E., and Biryuzova, V. I.

Title : Vertical distribution of microorganisms in the Kurile-Kamchatka depression of the Pacific Ocean

Periodical : Dok. AN SSSR 100/6, 1175-1178, Feb 21, 1955

Abstract : Scientific data are presented regarding the distribution of heterotrophic microorganisms at various depths of the Pacific Ocean along the Kurile-Kamchatka depression. Four USSR references (1951-1952). Tables; drawings.

Institution : Academy of Sciences USSR, Institute of Microbiology

Presented by: Academician A. I. Oparin, December 21, 1954

BIRYUZOVA, V. I.

USSR/ Biology - Microbiology

Card 1/1 Pub. 22 - 47/51

Authors : Kriss, A. E.; Biryuzova, V. I.; Tikhonenko, A. S.; and Lambina, V. A.

Title : The microbe population in the North Pole region

Periodical : Dok. AN SSSR 101/1, 173-176, Mar 1, 1955

Abstract : Data are presented on the microbiological processes of mineralization of organic matter and conversion of biogenous compounds which create the possibility for the existence of animal and plant life. The data on the microbe population of the North Pole were collected by the Microbiological Research Station attached to the so-called drifting Scientific Expedition North Pole 3. Four USSR references (1958-1959). Tables; drawing.

Institution : Acad. of Sc., USSR, Institute of Microbiology

Presented by : Academician A. I. Oparin, December 4, 1954

BIRUZOVA, V. I.

"[Small] Canal System in the Plasma Of Bacteria Cells,"

paper submitted for presentation at Fourth Int'l. Conference on Electron Microscopy, Berlin, GFR, 10-17 Sept '58.

Lab. Electron Microscopy, Acad. Sci. USSR.

C-3,800,829, 25 Jul 58.

KRISS, A.Ye. BIRYUZOVA, V.I., ABYZOV, S.S.

Micro-organisms multiplying under high pressures [with summary in English]. Izv. AN SSSR. Ser. biol. no. 6:677-689 N-D '58 (MIRA 11:11)

1. Institut mikrobiologii AN SSSR.  
(OCEAN BOTTOM--BACTERIA)  
(SOIL MICRO-ORGANISMS)  
(PRESSURE)



*BIRYUZOVA, V. I.*

**AUTHORS:**

Kriss, A. Ye., Tikhonenko, A. S.,  
Biryuzova, V. I.

20-119-4-51/60

**TITLE:**

Ultramicroscopic Formations Discovered in Sea and Ocean-  
Depths (Ul'tramikroskopicheskiye obrazovaniya, obnaruzhennyye  
v morskikh i okeanicheskikh glubinakh)

**PERIODICAL:**

Doklady Akademii Nauk, SSSR, 1958, Vol. 119, Nr 4, pp 809 -  
- 811 (USSR)

**ABSTRACT:**

Only electronic microscopy made it possible to observe directly albumin particles of a size of some dozens millimicrons or even some dozens Angströms. As in publications no experiments of the kind, as mentioned in the title, could be found, the authors performed this work. Samples from the Black Sea and the Pacific Ocean (Kurilo-Kamchatskaya Basin), taken by bathometers from depths from 0 to 7500 m served for the investigation. The method of the production of the preparation is described. Salt crystals can be well distinguished under the electronic microscope. Beside crystals about 6 to 7 kinds of mostly round ultramicroscopic formations, 15 - 1000 m $\mu$  from various depths (fig. 1) were found. Their concentration in the depths was considerable. The nature of all these round formations, which have a kind of structure and organization, is not yet clear. Some

Card 1/2

Ultramicroscopic Formations Discovered in Sea and Ocean Depths 20-119-4-51/60

of them are quite similar to the virus particles. Whether they are so-called saprophytic viri or structures of the coacervate type which form from organic substance dissolved in the sea water, is not known - in any case they cannot be regarded as an example for the primary formation of life from a lifeless material on the earth. For such an opinion all actual reasons are missing, as A. I. Oparin (reference 10) correctly remarks. There are 1 figure, 16 references, 10 of which are Soviet.

**ASSOCIATION:** Laboratoriya elektronnoy mikroskopii pri Otdelenii biologicheskikh nauk Akademii nauk SSSR (Laboratory for Electronic Microscopy of the Department for Biological Sciences AS USSR)

**PRESENTED:** January 4, 1958, by A. I. Oparin, Member, Academy of Sciences AS USSR

**SUBMITTED:** January 2, 1958

Card 2/2

3(9)

AUTHORS:

Kriss, A. Ye., Biryuzova, V. I., SOV/20-123-5-21/50  
Lebedeva, A. N.

TITLE:

A Morphological Description of the Microbe Population of the  
Seas and Oceans (Morfologicheskaya kharakteristika mikrobnogo  
naseleniya morey i okeanov)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 5, pp 845-848  
(USSR)

ABSTRACT:

The present paper systematically classifies observations made concerning the morphology of microorganisms detected in various depths of the Black Sea, the Caspian Sea, the north-western part of the Pacific, and the North Pole region. Each of these investigated regions is located at a sufficient distance from the next shore. A table gives the depth distribution of coccoid, rod-shaped, thread-shaped species and also of species of unusual shapes in the above-mentioned seas and oceans. Some of the microorganisms of unusual morphology are shown in a figure. Some of these microorganisms live only in relatively small regions of the sea. The microbic cells of unusual morphology (with the exception of the fragmentating threads) do not grow under laboratory conditions. The detection of microbes of unusual morphology is very interesting.

Card 1/2

SOV/20-123-5-21/50  
A Morphological Description of the Microbe Population of the Seas and Oceans

for microbiology and for the purpose of investigating and indicating the presence of Oceanic Currents. There are 1 figure, 1 table, and 10 Soviet references.

ASSOCIATION: Institut mikrobiologii Akademii nauk SSSR  
(Institute of Microbiology of the Academy of Sciences, USSR)

PRESENTED: May 26, 1958, by A. I. Oparin, Academician

SUBMITTED: May 26, 1958

Card 2/2